1.

No. The reason why I think a program adding two integers together then squaring the results cannot be a pure function is because the original value of the integer has changed. A pure function has to return the same value. However in this program the program would produce a different value from the input. For example the input integer could be 2n+1 + 3n+1. After adding the values and squaring them it would produce 25n+4. This is a different value making it not an integer.

3.

Yes. The reason why I believe this is because the user can unput any URL into the program and return with an output of the front page. This allows it to be able to be implemented as a pure function because no matter URL the program will still output a HTML source code for that website. Meaning there has been no side effects effecting any change or giving it an different output to the website which would make it unpure.

No. This would not be a pure function. The reason for this is because the program can be ran several different times and produce multiple different answers, allowing it to not be implemented as a pure functionn. The program would need to be able to return the same values as it was inputted as.

No. The reason for this is because the program can be ran a million times and produces a million different outcomes of orders for the cards. This cannot be implemented as pure function because multiple different times different values can be returned back to the user. If the program was able to return it back in the same order as it was inputted than it could be implemented as a pure function.

2.

No. This can not be implemented as a pure function. Although a URL and a HTML source code a similar, it is still different. A URL is the website link address and a HTML source code produce the

Yes. This program can be written as a pure function. For a program to be a pure function the values need to be outputted as the same value. If the program produces a different value means that the global state of the integer has been affected. If the integer was a + b the output will still come to the same answer even after addition and being squared.

The reason why I think this program can be wrote as an pure function is because if both the integers are recognised and inputted as a + b. The outcome produced will still come out as the same value. If the value was